Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A lightwave coupling device comprising:

a waveguide capable of propagating light of a first wavelength through internal reflection;

a photoluminescent medium positioned proximate to said waveguide, said photoluminescent medium capable of being selectively optically coupled to said waveguide for receiving light of said first wavelength and emitting light of a second wavelength in response to receiving light of said first wavelength; [[and]]

~~a coupling element operative for selectively optically coupling said photoluminescent medium with said waveguide to transfer light of said first wavelength from said optical waveguide to said photoluminescent medium~~

an electrowetting medium positioned between said waveguide and said photoluminescent medium;

first and second electrodes; and

a voltage source electrically coupled with said first and second electrodes, said voltage source capable of applying an actuation voltage to said first and second electrodes effective to move said electrowetting medium between a first condition that permits transfer light of said first wavelength from said optical waveguide to said photoluminescent medium and a second condition in which light of said first wavelength remains confined in said waveguide.

2-5. (Cancelled)

6. (Withdrawn) The lightwave coupling device of claim 1 further comprising:

a cladding layer disposed on said waveguide, said cladding layer having a lower refractive index than said waveguide.

7. (Withdrawn) The lightwave coupling device of claim 6 wherein said cladding layer is disposed between said waveguide and said photoluminescent medium, said cladding layer including an aperture to permit transfer of light of said first wavelength from said optical waveguide to said photoluminescent medium.

8-9. (Cancelled)

10. (Withdrawn) The lightwave coupling device of claim 1 wherein said waveguide includes a region between said waveguide and said photoluminescent medium effective to reflect said light of said first wavelength back into said waveguide.

11-21. (Cancelled)

22. (Currently Amended) The lightwave coupling device of claim [[21]] 1 further comprising:

a third electrode electrically connected to said voltage source, said third electrode participating in the movement of said electrowetting medium by receiving voltage from said voltage source.

23. (Currently Amended) ~~The lightwave coupling device of claim 21 wherein~~ A lightwave coupling device comprising:

a waveguide capable of propagating light of a first wavelength through internal reflection;

first and second electrodes;

an electrowetting medium positioned between said first and second electrodes, said electrowetting medium ~~operates as said photoluminescent medium~~ capable of being selectively optically coupled to said waveguide for receiving light of said first wavelength and emitting light of a second wavelength in response to receiving light of said first wavelength; and

a voltage source electrically coupled with said first and second electrodes, said voltage source capable of applying an actuation voltage to said first and second electrodes effective to move said electrowetting medium between a first condition that permits transfer light of said first wavelength from said optical waveguide to said electrowetting medium and a second condition in which light of said first wavelength remains confined in said waveguide.

24-31. (Cancelled)

32. (Currently Amended) The lightwave coupling device of claim ~~21 wherein said coupling element comprises~~ 1 further comprising:

a flexible supporting layer movable in response to said actuation voltage applied to said first and second electrodes, said flexible supporting member moving said electrowetting medium to provide said first and second conditions.

33. (New) The lightwave coupling device of claim 23 further comprising:

a cladding layer disposed on said waveguide, said cladding layer having a lower refractive index than said waveguide.

34. (New) The lightwave coupling device of claim 23 wherein said cladding layer is disposed between said waveguide and said electrowetting medium, said cladding layer including an aperture to permit transfer of light of said first wavelength from said optical waveguide to said electrowetting medium.

35. (New) The lightwave coupling device of claim 23 wherein said waveguide includes a region between said waveguide and said electrowetting medium effective to reflect said light of said first wavelength back into said waveguide.

36. (New) The lightwave coupling device of claim 23 further comprising:

a third electrode electrically connected to said voltage source, said third electrode participating in the movement of said electrowetting medium by receiving voltage from said voltage source.

37. (New) The lightwave coupling device of claim 23 further comprising:

a flexible supporting layer movable in response to said actuation voltage applied to said first and second electrodes, said flexible supporting member moving said electrowetting medium to provide said first and second conditions.